3: Chinnery G. E.-5 (1929) 1931 OM10 New Ireland OM10

attacking shoals of fish come near to take their share. The canoe-men throw in their fish bait to lure the sharks within range of their loops of cane, and then they catch them, and after knocking them on the head haul them into the canoe. 226

Small gardens are made wherever fertile ground can be found, and in one or two places there are sago swamps where sago is cultivated and reserved for times of dry weather and food shortage. 241

In olden days trading was actively carried on between some of the coastal villages and Tabar. Nowadays the coastal and bush people barter with fish and taro, pigs, &c. 439

A shell money currency is used for trading and ceremonial purposes. It consists of smooth flat discs strung on fibre strands. At Kandan this is known as *levene*. One kind *levene da lolot*, a small red shell money, is made in the islands north of Kavieng and traded down the road; another *levene do liklik*, a small white shell money of lesser value, is made in the vicinity of Lemasong and Pinigindu. On the Lelet Plateau a different shell money *levenè dasilok* occurs. It is of great value locally. Nothing was known of its origin, and there is relatively little of it left. When they showed it to me, I recognized it as the red shell money used in the D'Entrecasteaux group of Papua where it is known commonly as *sapi-sapi* and *bagi*. Similar shell money also occurs in the British Solomons. It probably found its way into the district during the "Blackbirding days" of olden times when many natives from this coast were recruited and taken to work on the cane-fields of Queensland. One or two of the survivors were met in the villages, still hale and hearty despite their age. 436 [170]

In this area there is still another kind of shell money *levene bungabung* made from white shell, the discs being larger than the other forms. The origin of this is also unknown.

The record of my enumeration of the population was handed to Mr. Charles H. Wickens, Commonwealth Government Statistician and Actuary, for consideration. His comments thereon are sub-joined— 128

The three tables which are appended have been compiled from investigations made by E. W. P. Chinery in the villages of the East coast of New Ireland, and provided a mass of data which might be profitably availed of by those wishing to make an intensive study of local conditions in New Guinea.

The first table is in respect of the components of population, and indicates by males and females the conjugal condition of adults, the number of children and adopted children and the number of village people who were absent at mission schools or at work outside the village.

The second table deals with the issue and survival of children of a number of unions in each village, and indicates the mortality of children during the lactation period (approximately two years after birth) and up to the time of the investigation, and number of children that were born per union and the number that survived per union. The mortality of first-born children is also shown.

4: Powdermaker E-5 (1929-1930)1931 OM10 New Ireland OM10
Lesu

163

TABLE 2

Distribution of Women by Number of Offspring

											TOTALS
Number of women	35	41	56	75	57	22	6	2	0	1	295
Per cent of women	11.8	13.9	19.	25.4	19.4	7.4	2.	0.7		0.3	99.9
Number of offspring	0	1	2	3	4	5	6	7	8	9	775

Of the 295 women, the largest group have three children and the next largest groups have four and two offspring respectively. Very few of the women have more than five offspring.

163
171

While the average issue rate for the women of this study seems very low, it does not vary very much from the rate of fecundity for the native-born women in the United States in recent times. Statistics on this subject are available only for certain sections of the country and for certain classes of people. In 1905, in Rhode Island, the average number of children born to native-born married women was 2.06 and to foreign-born married women 3.35.[8] From the census of 1900 a study of fecundity was made for the region including the state of Rhode Island, the cities of Cleveland and Minneapolis, 48 mainly rural counties of Ohio, and 21 mainly rural counties of Minnesota. The women of native white parentage had 2.7 children, while those of foreign parentage had 4.4 children.[9] The number of children per married couple of Yale graduates in the period 1881-90 was 2.04.[10] (The fertility of foreign-born stock in the United States is much higher and ranges from 6.2 for the Poles, to 3.4 for the English.[11]) It would seem that the fecundity of the Melanesians in New Ireland, while low, is about equal to that of the native-born whites of this country. Now, according to Carr-Saunders, fecundity has increased with civilization. He presents no statistical evidence for this theory, but he gives much suggestive evidence from primitive people all over the world.[12] The low rate of fecundity among the native-born white women of the United States is probably due to the use of contraceptives and cultural factors, such as

[8] Holmes, S. J., The Trend of the Race, *N. Y.*, 1921, p. 125.
[9] *Ibid.*, p. 127.
[10] *Ibid.*, p. 136.
[11] *Ibid.*, p. 128.
[12] Carr-Saunders, A. M., The Population Problem, *Oxford*, 1922, pp. 92-105.

Powdermaker E-5 (1929-1930)1931 OM10 New Ireland OM10
Lesu

163 [171] economic conditions, time of marriage, etc., and does not therefore invalidate Carr-Saunders' theory.

Although it is not absolutely certain, it appears that the people of this study have maintained a stable birth rate over three generations, yet at the same time there seems to be an increase in the percentage of sterile women. If the number of sterile women are grouped according to their generation, the percentage of sterility over the three generations can be measured. Table 3 presents this.

TABLE 3

Sterility Rates

GENERATION	NUMBER OF STERILE WOMEN	PER CENT OF WOMEN WHO ARE STERILE
I	8	5.3
II	16	16.6
III	11	20.
Totals	35	11.8

It can be seen that the percentage of sterile women jumps from 5.3 per cent to 20 per cent in three generations.[18] There is not the same possibility for error in this rate as there is in the issue rate for the women of generation *I*, for if the informants forgot to give children of these dead women, it would have made the sterility rate higher than it should be and the corresponding increase in sterility to the present time would be still greater. The same fault of memory would have made the fecundity of these women lower than it should be, and there is thus the possibility that the birth rate may have declined instead of being stable. The error could only be one way and we know therefore that the birth rate has not increased.

163 164 It is the opinion of the writer that the low rate of fecundity and the increase of sterility among these Melanesian women may be due to the introduction of syphilis and gonorrhoea, usually the accompaniment

[18] cf. Pitt-Rivers, G. H. L. F., The Clash of Culture, *London*, 1927, Table IV, Appendix II, taken from Indian Population of the U. S. and Alaska, 1910, p. 157. The sterility for North American Indian and mixed-blood women between the ages of 15 and 44 years, and married one year or more, varies from 4.3 to 16.6, the highest percentage falling among the marriages of full-bloods.

4: Powdermaker E-5 (1929-1930)1931 OM10 New Ireland OM10
Lesu

165 comes 20 per cent, if in both cases the per cent for which the period of death is unknown is supposed to have occurred during lactation. Comparing any of the three generations, it is clear that there has been an increase in mortality during the lactation period.

Table 6, which follows, presents the percentage of deaths of offspring arranged according to their order of birth. The percentage is

TABLE 6

Percentage Ratio of Deaths in Infancy and Childhood to Births by Birth Order

	1ST BORN	2ND BORN	3RD BORN	4TH BORN	AFTER 4TH BORN
Totals for all four generations	20.9	17.1	11.9	8.2	3.

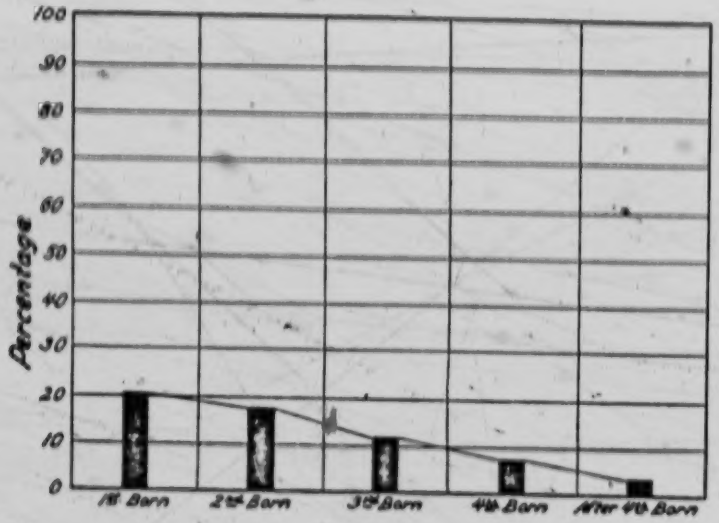

CHART III

PERCENTAGE OF DEATHS ARRANGED ACCORDING TO THEIR ORDER OF BIRTH
The percentage is based on the total number of deaths from birth to end of childhood.

---

to 16.4 per cent for the children of generation number III and to 17.5 per cent for the children of generation number IV of this study.

[171] In the United States the mortality rate for the period from birth to the age of three years is 14.9 per cent. Computed from United States Life Tables, Dept. of Commerce, Bureau of the Census (based on the mortality rates for both sexes in the Original Registration States for 1910).